UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,327	07/30/2003	Eitan Rosen	MP0280	1395

26200 7590 01/14/2008

FISH & RICHARDSON P.C.
P.O BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
CHEN, TSE W	

ART UNIT	PAPER NUMBER
2116	

MAIL DATE	DELIVERY MODE
01/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/631,327	ROSEN, EITAN	
	Examiner	Art Unit	
	Tse Chen	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 23-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 23-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In view of the pre-appeal brief filed on September 20, 2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-6, 11-15, 23-25, 27-28, 33-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al., US Patent 5964856, hereinafter Wu.

3. In re claims 1 and 23, Wu discloses a circuit, comprising associated means of:

- A clock transmitter in communication with a clock bus, the clock transmitter to transmit a clock signal [STBp] on the clock bus [col.5, ll.22-23].
- A clock receiver [receiving bus agent] in communication with the clock bus, the clock receiver to receive a clock signal on the clock bus [col.5, ll.24-25].
- A driver in communication with the clock bus, the driver to drive and maintain a voltage of the clock bus to a first voltage level [high] when the clock transmitter is not transmitting a clock signal on the clock bus and the clock receiver is not receiving a clock signal on the clock bus [fig.3; drive and maintain high voltage from period 4A to 4B during dead clock period].

4. As to claims 2 and 24, Wu discloses, wherein the first voltage level is a voltage level corresponding to a logical one [i.e., high] [fig.3].

5. As to claims 3 and 25, Wu discloses, wherein the driver includes a resistance [inherently, circuitries comprise resistance in order to function properly].

6. As to claims 5 and 27, Wu discloses, wherein the driver includes a transistor [col.3, ll.18-19; e.g., processors comprises transistors].

7. As to claims 6 and 28, Wu discloses, including enabling circuitry in communication with the driver, the enabling circuitry to enable the driver when the clock transmitter is not transmitting a clock signal on the clock bus and the clock receiver is not receiving a clock signal on the clock bus [col.2, ll.32-34; col.5, ll.22-25; inherent circuitry to enable driver to drive STBp high during dead clock period].

8. As to claims 11 and 33, Wu discloses, wherein the driver is included in a packet processor [col.3, ll.18-19].

9. As to claims 12 and 34, Wu discloses, wherein the driver is included in a packet processor configured to transmit data and to receive data according to a double data rate protocol [col.3, ll.18-19; col.6, ll.60-62].

10. As to claims 13 and 35, Wu discloses, including a memory [130].

11. As to claims 14 and 36, Wu discloses, wherein the memory is configured to transmit data and to receive data according to the double data rate protocol [col.2, ll.35-48; col.6, ll.60-62].

12. As to claims 15 and 37, Wu discloses, another clock transmitter in communication with the clock bus, the another clock transmitter to transmit a clock signal on the clock bus, another clock receiver in communication with the clock bus, the another clock receiver to receive a clock signal on the clock bus, and another driver in communication with the clock bus, the another driver to drive the voltage of the clock bus to the first voltage level when the another clock

transmitter is not transmitting a clock signal on the clock bus and the another clock receiver is not receiving a clock signal on the clock bus [fig.1; n devices].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 4 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claims 3 and 25 above, and further in view of Masuda et al., US Patent 5732249, hereinafter Masuda.

15. Wu taught each and every limitation of the claim as discussed above. Wu did not discuss details of the driver.

16. Masuda discloses a driver [fig.1] that includes a first resistance [r1] between the clock bus [1] and a voltage Vdd, and wherein the driver further includes a second resistance [r2] between the clock bus and ground.

17. It would have been obvious to one of ordinary skill in the art, having the teachings of Wu and Masuda before him at the time the invention was made, to modify the circuit taught by Wu to include the driver explicitly taught by Masuda, in order to obtain the claimed circuit. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to control clock skew [Masuda: abstract].

18. Claims 7 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claims 6 and 28 above, and further in view of McDaniel et al., US Patent 5355468, hereinafter McDaniel.

19. Wu taught each and every limitation of the claim as discussed above. Wu did not disclose disabling the driver when the clock transmitter is not transmitting a clock signal on the clock bus and the clock receiver is not receiving a clock signal on the clock bus.

20. McDaniel discloses the enabling circuitry to disable the driver when the [clock] transmitter is not transmitting a [clock] signal on the [clock] bus and the [clock] receiver is not receiving a [clock] signal on the [clock] bus [col.11, ll.3-62; col.26, ll.7-11; disable when clock/data signal is not present].

21. It would have been obvious to one of ordinary skill in the art, having the teachings of Wu and McDaniel before him at the time the invention was made, to modify the circuit taught by Wu to include the teachings of McDaniel, in order to obtain the claimed circuit. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to conserve power [McDaniel: col.26, ll.7-11].

22. Claims 8-10 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claims 6 and 28 above, and further in view of Jeppesen III et al., US Patent 5355468, hereinafter Jeppesen.

23. Wu taught each and every limitation of the claim as discussed above. Wu did not disclose the receive processing clock to turn off in response to a signal from the enabling circuitry.

24. In re claims 8 and 30, Jeppesen discloses receive processing circuitry in communication with the enabling circuitry, the receive processing circuitry including a receive processing clock,

the receive processing clock to turn off in response to a signal from the enabling circuitry [col.8, ll.3-6].

25. In re claims 9 and 31, Jeppesen discloses, wherein the enabling circuitry includes a flip flop [37].

26. In re claims 10 and 32, Jeppesen discloses, wherein the enabling circuitry enables the driver when the flip flop is in a first state [clip = high], and wherein the enabling circuitry disables the driver when the flip flop is in a second state [clip = low] [col.6, ll.11-19].

27. It would have been obvious to one of ordinary skill in the art, having the teachings of Wu and Jeppesen before him at the time the invention was made, to modify the circuit taught by Wu to include the teachings of Jeppesen, in order to obtain the receive processing clock that turns off in response to a signal from the enabling circuitry and the associated circuits. One of ordinary skill in the art would have been motivated to make such a combination as it provides a predictable and accurate way to control timing [Jeppesen: col.2, ll.6-9].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571) 272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tse Chen
December 27, 2007